

X
ENTERED

1645



RECEIVED

JUL 10 2002
TECH CENTER 1600/2900

1600

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/931,325C

DATE: 06/20/2002
TIME: 14:19:56

Input Set : A:\Icc103p1.app
Output Set: N:\CRF3\06202002\I931325C.raw

3 <110> APPLICANT: Birkett, Ashley J.
 5 <120> TITLE OF INVENTION: MALARIA IMMUNOGEN AND VACCINE
 7 <130> FILE REFERENCE: 4564/83503 ICC-103.1
 9 <140> CURRENT APPLICATION NUMBER: 09/931,325C
 C--> 10 <141> CURRENT FILING DATE: 2000-08-16
 12 <150> PRIOR APPLICATION NUMBER: 60/225,843
 13 <151> PRIOR FILING DATE: 2000-08-16
 15 <150> PRIOR APPLICATION NUMBER: USSN NOT YET ASSIGND
 16 <151> PRIOR FILING DATE: 2001-08-15
 18 <160> NUMBER OF SEQ ID NOS: 186
 20 <170> SOFTWARE: PatentIn Ver. 2.1
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 16
 24 <212> TYPE: PRT
 25 <213> ORGANISM: Plasmodium falciparum
 27 <400> SEQUENCE: 1
 28 Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro
 29 1 5 10 15
 32 <210> SEQ ID NO: 2
 33 <211> LENGTH: 24
 34 <212> TYPE: PRT
 35 <213> ORGANISM: Plasmodium falciparum
 37 <400> SEQUENCE: 2
 38 Asn Ala Asn Pro Asn Val Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro
 39 1 5 10 15
 41 Asn Ala Asn Pro Asn Val Asp Pro
 42 20
 45 <210> SEQ ID NO: 3
 46 <211> LENGTH: 20
 47 <212> TYPE: PRT
 48 <213> ORGANISM: Plasmodium falciparum
 50 <400> SEQUENCE: 3
 51 Asn Ala Asn Pro Asn Val Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro
 52 1 5 10 15
 54 Asn Ala Asn Pro
 55 20
 58 <210> SEQ ID NO: 4
 59 <211> LENGTH: 20
 60 <212> TYPE: PRT
 61 <213> ORGANISM: Plasmodium falciparum
 63 <400> SEQUENCE: 4
 64 Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Val Asp Pro
 65 1 5 10 15

RAW SEQUENCE LISTING DATE: 06/20/2002
PATENT APPLICATION: US/09/931,325C TIME: 14:19:56

Input Set : A:\Icc103p1.app
Output Set: N:\CRF3\06202002\I931325C.raw

67 Asn Ala Asn Pro
68 20
71 <210> SEQ ID NO: 5
72 <211> LENGTH: 28
73 <212> TYPE: PRT
74 <213> ORGANISM: Plasmodium falciparum
76 <400> SEQUENCE: 5
77 Asn Ala Asn Pro Asn Val Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro
78 1 5 10 15
80 Asn Ala Asn Pro Asn Val Asp Pro Asn Ala Asn Pro
81 20 25
84 <210> SEQ ID NO: 6
85 <211> LENGTH: 20
86 <212> TYPE: PRT
87 <213> ORGANISM: Plasmodium falciparum
89 <400> SEQUENCE: 6
90 Asn Pro Asn Val Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala
91 1 5 10 15
93 Asn Pro Asn Val
94 20
97 <210> SEQ ID NO: 7
98 <211> LENGTH: 22
99 <212> TYPE: PRT
100 <213> ORGANISM: Plasmodium falciparum
102 <400> SEQUENCE: 7
103 Asn Pro Asn Val Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala
104 1 5 10 15
106 Asn Pro Asn Val Asp Pro
107 20
110 <210> SEQ ID NO: 8
111 <211> LENGTH: 24
112 <212> TYPE: PRT
113 <213> ORGANISM: Plasmodium falciparum
115 <400> SEQUENCE: 8
116 Asn Pro Asn Val Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala
117 1 5 10 15
119 Asn Pro Asn Val Asp Pro Asn Ala
120 20
123 <210> SEQ ID NO: 9
124 <211> LENGTH: 18
125 <212> TYPE: PRT
126 <213> ORGANISM: Plasmodium falciparum
128 <400> SEQUENCE: 9
129 Asn Val Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro
130 1 5 10 15
132 Asn Val
136 <210> SEQ ID NO: 10
137 <211> LENGTH: 20
138 <212> TYPE: PRT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/931,325C

DATE: 06/20/2002

TIME: 14:19:56

Input Set : A:\Icc103p1.app

Output Set: N:\CRF3\06202002\I931325C.raw

139 <213> ORGANISM: Plasmodium falciparum
141 <400> SEQUENCE: 10
142 Asn Val Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro
143 1 5 10 15
145 Asn Val Asp Pro
146 20
149 <210> SEQ ID NO: 11
150 <211> LENGTH: 22
151 <212> TYPE: PRT
152 <213> ORGANISM: Plasmodium falciparum
154 <400> SEQUENCE: 11
155 Asn Val Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro
156 1 5 10 15
158 Asn Val Asp Pro Asn Ala
159 20
162 <210> SEQ ID NO: 12
163 <211> LENGTH: 16
164 <212> TYPE: PRT
165 <213> ORGANISM: Plasmodium falciparum
167 <400> SEQUENCE: 12
168 Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Val
169 1 5 10 15
172 <210> SEQ ID NO: 13
173 <211> LENGTH: 18
174 <212> TYPE: PRT
175 <213> ORGANISM: Plasmodium falciparum
177 <400> SEQUENCE: 13
178 Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Val
179 1 5 10 15
181 Asp Pro
185 <210> SEQ ID NO: 14
186 <211> LENGTH: 20
187 <212> TYPE: PRT
188 <213> ORGANISM: Plasmodium falciparum
190 <400> SEQUENCE: 14
191 Asp Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Val
192 1 5 10 15
194 Asp Pro Asn Ala
195 20
198 <210> SEQ ID NO: 15
199 <211> LENGTH: 18
200 <212> TYPE: PRT
201 <213> ORGANISM: Plasmodium vivax
203 <400> SEQUENCE: 15
204 Asp Arg Ala Ala Gly Gln Pro Ala Gly Asp Arg Ala Asp Gly Gln Pro
205 1 5 10 15
207 Ala Gly
211 <210> SEQ ID NO: 16
212 <211> LENGTH: 36

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/931,325C

DATE: 06/20/2002

TIME: 14:19:56

Input Set : A:\Icc103p1.app
Output Set: N:\CRF3\06202002\I931325C.raw

213 <212> TYPE: PRT
214 <213> ORGANISM: Plasmodium vivax
216 <400> SEQUENCE: 16
217 Ala Asn Gly Ala Gly Asn Gln Pro Gly Ala Asn Gly Ala Gly Asp Gln
218 1 5 10 15
220 Pro Gly Ala Asn Gly Ala Asp Asn Gln Pro Gly Ala Asn Gly Ala Asp
221 20 25 30
223 Asp Gln Pro Gly
224 35
227 <210> SEQ ID NO: 17
228 <211> LENGTH: 18
229 <212> TYPE: PRT
230 <213> ORGANISM: Plasmodium vivax
232 <400> SEQUENCE: 17
233 Ala Asn Gly Ala Gly Asn Gln Pro Gly Ala Asn Gly Ala Gly Asp Gln
234 1 5 10 15
236 Pro Gly
240 <210> SEQ ID NO: 18
241 <211> LENGTH: 18
242 <212> TYPE: PRT
243 <213> ORGANISM: Plasmodium vivax
245 <400> SEQUENCE: 18
246 Ala Asn Gly Ala Asp Asn Gln Pro Gly Ala Asn Gly Ala Asp Asp Gln
247 1 5 10 15
249 Pro Gly
253 <210> SEQ ID NO: 19
254 <211> LENGTH: 18
255 <212> TYPE: PRT
256 <213> ORGANISM: Plasmodium vivax
258 <400> SEQUENCE: 19
259 Ala Asn Gly Ala Gly Asn Gln Pro Gly Ala Asn Gly Ala Asp Asn Gln
260 1 5 10 15
262 Pro Gly
266 <210> SEQ ID NO: 20
267 <211> LENGTH: 18
268 <212> TYPE: PRT
269 <213> ORGANISM: Plasmodium vivax
271 <400> SEQUENCE: 20
272 Ala Asn Gly Ala Asp Asn Gln Pro Gly Ala Asn Gly Ala Asp Asp Gln
273 1 5 10 15
275 Pro Gly
279 <210> SEQ ID NO: 21
280 <211> LENGTH: 22
281 <212> TYPE: PRT
282 <213> ORGANISM: Plasmodium vivax
284 <400> SEQUENCE: 21
285 Ala Pro Gly Ala Asn Gln Glu Gly Gly Ala Ala Ala Pro Gly Ala Asn
286 1 5 10 15
288 Gln Glu Gly Gly Ala Ala

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/931,325C

DATE: 06/20/2002

TIME: 14:19:56

Input Set : A:\Icc103p1.app

Output Set: N:\CRF3\06202002\I931325C.raw

289 20
292 <210> SEQ ID NO: 22
293 <211> LENGTH: 16
294 <212> TYPE: PRT
295 <213> ORGANISM: Plasmodium berghei
297 <400> SEQUENCE: 22
298 Asp Pro Pro Pro Pro Asn Pro Asp Pro Pro Pro Pro Asn Pro Asn
299 1 5 10 15
302 <210> SEQ ID NO: 23
303 <211> LENGTH: 24
304 <212> TYPE: PRT
305 <213> ORGANISM: Plasmodium yoelii
307 <400> SEQUENCE: 23
308 Gln Gly Pro Gly Ala Pro Gln Gly Pro Gly Ala Pro Gln Gly Pro Gly
309 1 5 10 15
311 Ala Pro Gln Gly Pro Gly Ala Pro
312 20
315 <210> SEQ ID NO: 24
316 <211> LENGTH: 22
317 <212> TYPE: PRT
318 <213> ORGANISM: Plasmodium falciparum
320 <400> SEQUENCE: 24
321 Gly Ile Glu Tyr Leu Asn Lys Ile Gln Asn Ser Leu Ser Thr Glu Trp
322 1 5 10 15
324 Ser Pro Cys Ser Val Thr
325 20
328 <210> SEQ ID NO: 25
329 <211> LENGTH: 19
330 <212> TYPE: PRT
331 <213> ORGANISM: Plasmodium vivax
333 <400> SEQUENCE: 25
334 Tyr Leu Asp Lys Val Arg Ala Thr Val Gly Thr Glu Trp Thr Pro Cys
335 1 5 10 15
337 Ser Val Thr
341 <210> SEQ ID NO: 26
342 <211> LENGTH: 20
343 <212> TYPE: PRT
344 <213> ORGANISM: Plasmodium yoelii
346 <400> SEQUENCE: 26
347 Glu Phe Val Lys Gln Ile Ser Ser Gln Leu Thr Glu Glu Trp Ser Gln
348 1 5 10 15
350 Cys Ser Val Thr
351 20
354 <210> SEQ ID NO: 27
355 <211> LENGTH: 18
356 <212> TYPE: DNA
357 <213> ORGANISM: Artificial Sequence
359 <220> FEATURE:
360 <223> OTHER INFORMATION: Description of Artificial Sequence: plasmid pk223

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/931,325C

DATE: 06/20/2002

TIME: 14:19:57

Input Set : A:\Icc103p1.app

Output Set: N:\CRF3\06202002\I931325C.raw

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date